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BATTEY'S OPERATION.*

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On the 17th day of August, 1872, Dr. Robert Battey, of Rome, Ga., startled the world by describing a new operation for the removal of normal ovaries, for the purpose of bringing on an artificial and premature change of life. The patient upon whom Dr. Battey performed this operation had been under his treatment for a number of years, on account of pain and many incurable reflex nervous symptoms, which accompanied her monthly periods. All other means of treatment having failed, he reasoned out his plan of removing the ovaries, in the hope that an earlier change of life would cure his patient.

His theory was, if the ovaries should be removed, there would afterward of necessity be a cessation of ovulation; and if there was a suspension of ovulation there would be as a consequence a cessation of menstruation, and if the menstruation could be prevented or cut off altogether, the pain and nervous symptoms of the suffering woman would be relieved, and she would be henceforward cured. It was not his purpose simply to remove these organs,

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on account of any supposed disease, but to bring on an artificial "change of life." The operation fortunately succeeded, and the patient was relieved from her troubles.

He described his method before medical societies and in medical journals, and soon afterward a number of his friends and others followed in his footsteps.

The operation was subsequently greatly abused; ovaries were removed which might, by patient and persevering treatment, have been cured. An outcry arose in the profession against what was called an unnecessary and indiscriminate sacrifice of these important organs. And on account of this revulsion in feeling, to a great extent, Battey's operation—that is, the removal of normal ovaries—fell into discredit.

Other operators described this same proceeding under the name of "spaying;" others still as "castration;" others still, when both the tubes and ovaries are removed, spoke of it as the "removal of the uterine appendages;" but this last name has been reserved for the operation when it has been performed for the relief of chronic inflammatory diseases and their complications.

Hegar performed the same operation, with the same object in view, in July, 1872, but as his patient died, he did not publish his views.

Lawson Tait also operated in August, 1872, for the removal of the ovaries and tubes for the purpose of arresting the hæmorrhage and the growth of a fibroid tumor, but did not publish his case until after Battey.

Trenholm, of Montreal, also operated soon after Battey—doing the same operation, but with altogether a different object in view.

Notwithstanding the fact that these operations by Hegar and Tait and Trenholm had been performed on Battey's statement of the effect of the operation on the woman, yet the cause of the operation, and also the particular effect to be produced, were altogether different from those sought to be produced by Battey in his first case.

The field of this operation rapidly widened until too

many operators were removing ovaries for the purpose of allaying pain, and checking a large variety of nervous symptoms which seemed to cluster around and to culminate at the monthly period, until, as above stated, after a number of years there was quite an outcry in the profession against this too wholesale mutilation of women, as it was called.

The pendulum has now swung so far in the other direction, that at the present time Battey's operation, for the relief of reflex nervous symptoms and pelvic pain, is rarely performed. It was gradually found on investigation that all patients who had been operated upon for the relief of such symptoms were not cured; some were only relieved for a short space of time, as they might perhaps have been by any other radical measures, which might have produced a marked and sudden effect upon their nervous systems. Occasionally these patients come back to the operator, or more likely to some other doctor, with their aches and pains as bad as ever.

The removal of the ovaries and tubes for the arrest of hæmorrhage and the checking of the growth of fibroid tumors, stands on a much more firm foundation. Experience has shown that the expectations of operators in this class of cases has been generally realized. It is a very successful operation primarily, and the effect has been such as to greatly encourage those who are operating in this direction.

After fibroid tumors have attained considerable size, and have acquired other vascular supply through adhesions, it would be unwise and useless to do Battey's operation, as the blood supply, which we cut off by tying the ovarian arteries, would not deprive the tumor of its nourishment sufficiently to check its growth or prevent hæmorrhage. But when these tumors are no larger than a cocoanut or a child's head, this operation has proven itself in numerous instances to be one of the most successful means of dealing with this very troublesome and anxious class of cases. The

immediate mortality of the operation should not be above 3 per cent.

The writer has performed this operation in thirty-four instances on account of fibroid tumors, and all but one of the cases, so far as heard from up to date, have had the most gratifying result in arresting the hæmorrhage and checking the growth of the tumors. There was no death in this series of thirty-four cases.

There have been a number of cases reported, however, where an attempt has been made to remove the ovaries upon Battey's, or Hegar's, or Tait's theory, and the effort has failed on account of their attachment to the side of the uterus or tumor to such an extent that such free and otherwise uncontrollable hæmorrhage was produced by their separation as to render hysterectomy necessary in order to save the life of the patient on the table. Surgeons, therefore, doing this operation should be prepared to perform hysterectomy if the necessity should arise. In his series of thirty-eight hysterectomies, Keith found it necessary to terminate three operations begun for the removal of the ovaries by supra-vaginal hysterectomy.

Speaking of the results of this operation, it is necessary to state that there are a certain number of failures to cure, and that they occur in about the same proportion of cases in which the change of life fails to check the growth and hæmorrage of fibroid tumors.

Recent investigations have shown the effect of the menopause to be much less than was formerly taught. In presenting the claims of this operation to patients, this possibility of failure should be mentioned. It might aid in a final decision between oophorectomy and hysterectomy.

Battey accounts for the continuation of menstruation after his operation, on the theory that there may be a third ovary. He stated to me on one occasion that he had written to a large number of demonstrators of anatomy in different parts of the country, and to coroners who make post-mortem examinations, requesting to be informed of the results of their post-mortems so far as they related to the discovery of

a third ovary; and he stated that his answers to these interrogations demonstrated the fact that in about 5 per cent. of the autopsies there was a third ovary found. And as his experience showed that menstruation in these women in whom the ovaries had been removed kept on in five per cent. of his cases, it was quite probable that these women possessed a third ovary.

Dr. Arthur Johnstone, of Cincinnati, in common with most surgeons, accounts for the continuation of menstruation by the failure of the operator to remove all the ovarian stroma and the entire Fallopian tube. They believe in cases where the periods continue, enough of the ovaries and tube are left behind to keep alive the menstrual habit.

Johnstone lays special stress however upon the presence of a ganglion of nerves near the point of departure of the tube from the uterus, which is, to a large extent, he states, the cause of menstruation. Failure to remove, or tie off this nerve, permits the continuation of the monthly flow, even if the ovary and the greater part of the tube have been removed.

The liability of a long tubal stump to permit fluid collections of pus, mucus, or blood, emphasizes the necessity for their more complete removal than was formerly believed necessary.

By tying off the uterine appendages close up to the *cornua* of the uterus we do a more complete operation and will do all that we can, to prevent further disease in the tubal stump, and will thus save ourselves chagrin and our patient the annoyance of seeing the menses continue after we had promised that they would disappear.

Recently the operation has been performed with considerable success in cases of menstrual insanity. The writer has had two most remarkable cases, one of whom was taken from an insane asylum, the superintendent of which stated that "she was incurable by any methods under his control, and was a proper subject for Battey's operation." In both these cases the operation was done for the purpose of removing normal ovaries. They were found, however, to be

greatly diseased, although the extent of the disease had not been previously recognized.

The operation was done only for the purpose of bringing on a premature and artificial change of life, in the hope that this enforced cessation of the menstrual flow would do away also with its attendent nervous and insane phenomena.

In one of these patients the transformation from a driveling disgusting lunatic, hopelessly confined behind the locked doors of an insane asylum, to a charming and beautiful lady is little less than marvelous. The gratitude of the patient and her family is simply boundless.

In the second case referred to, and in quite a number of others within the personal experience of the writer, it is believed that patients were not only saved from the insane asylum but from self destruction.

Goodell, Price, and other gynecological surgeons, have reported similar cases. The menstrual *molimen* abolished, its accompanying nervous and mental symptoms disappear also.

So far as at present known, the relief in the cases above referred to has been permanant.

The outcry in the profession against this operation was based on two grounds. First, that it did not cure all the patients permanently of their reflex nervous symptoms, pelvic pains, etc., and, secondly, that it was a horrible mutilation of the sex; and for these reasons, if for no other, it should be condemned.

The restrictions thus placed upon this operation, have gradually narrowed it down, until now Battey's operation is confined to a very limited field. Its abuse, by unwise and incompetent operators, had a still further effect in this direction.

Increased experience has shown that many of the dysmenorrhœal and nervous patients can be cured by appropriate treatment very much oftener than we formerly supposed. The sentimental cry about unsexing and mutilating, should have little influence upon the surgeon, in as

much as the unsexing is done already by the disease which we operate to cure, making it impossible that the desire for offspring should ever be realized.

If oophorectomy were only done for the premature production of the menopause upon Battey's theory, in the practice of which he and others removed normal ovaries, this objection might apply; but in this day of improved practice, a surgeon who presents normal ovaries to a medical society has to show very good cause for his operation to escape censure.

If ovulation and conception are unobstructed by disease, the operation should not be done.

If the ovaries are sufficiently diseased to require removal to save life or reason, conception and child birth are thereby rendered impossible. The woman is unsexed or sterilized by the diseases, and the surgeon who wards off death or insanity by his timely operation does good work—the sentimental objection to which is nonsensical, and should deter or influence no conscientious operator.

Still another objection is brought against Battey's operation, on the ground that the nature of the female would be so entirely changed by the removal of her ovaries that all sexual desire would be abolished. Examination of a sufficiently large number of cases has been made to show that this result is an exception and not the rule. These women are improved by this operation in their personal appearance, and unchanged as a rule in their sexual natures. Goodell says: "They are just as womanly and just as womanish after this operation as they were before."

In two cases operated on by the writer, the women married later on, and their husbands stated to him that their lives were blissfully happy. In another case the wife was completly changed after the removal of her diseased ovaries. Formerly she loathed and finally refused all sexual intercourse, largely on account of the pain it produced, and the fear also of having children. After the operation having, neither pain nor fear, she became aggressive in her demands for sexual gratification.

In very few cases husbands have complained that their wives have gradually grown colder, until finally all sexual desire and pleasure were lost. This, however, is the exception and not the rule.

As the technique in abdominal surgery approaches nearer to perfection supra-vaginal and pan-hysterectomies are likely to supercede oophorectomy for relief of fibroid tumors, and also for other incurable diseases of the uterus or endometrium.

The removal of the ovaries and tubes as shown above frequently fails to entirely cure, when associated with a fibroid or otherwise diseased uterus. The patients are not all free of subsequent uterine displacements, hæmorrhages, discharges and pains.

The uterus is certainly of no use or value after its appendages are gone; and the conviction is rapidly growing among operators that in cases where oophorectomy is advisable and indicated, hysterectomy is the more radical and preferable operation.

The mortality of hysterectomy is approaching so near to that of ovariotomy in expert hands that quite a number of gynecological surgeons are already advocating this practice.

In cases free from dangerous adhesions supra-vaginal hysterectomy by the method described, and very successfully performed by Dr. Baer of Philadelphia, is an easy, comparatively safe, and ideally correct operation. The complete removal of the uterus in these cases is advocated by Krug, Polk, Edebolds, Mann, Gordon and others.

On account, however, of the longer time required and the greater and unnecessary destruction of the pelvic arch and the shortening of the vagina, the writer believes that Baer's operation better fulfills the indications presented, than pan hysterectomy in *non* malignant cases. He may be influenced, however, by the fact that he has done 18 Baer operations with one death, while his only complete removal of the fibroid uterus, which was also cancerous, died.

In all cases where the tumor or uterus is malignant the

cervix should be completely removed along with the body of the uterus and tumor.

If dysmenorrhœa is to be cured by dilatation, curetting, irrigation and drainage; if the nervous and painful ailments are also cured by mechanical supports and improved operative aseptic technique, and if hysterectomy gradually takes the place of oophorectomy, the heretofore broad field for Battey's operation will shrink down to a narrow lane.

There will still remain, however, certain bad cases of otherwise incurable ailments, such as menstrual epilepsy, menstrual insanity, too free, too frequent and too painful menstruation, where Battey's operation may be the only cure. The menstrual molimen may be accompanied by such a stormy train of symptoms as to make a mental and physical wreck of the sufferer. After exhausting other methods of relief, including the element of time, Battey's operation may completely remove the cause of the trouble.

It is also indicated in those rare cases of congenital malformation where active ovaries exist, and there is either an infantile uterus or none at all. Ovulation proceeds normally enough, but the impossibility of menstruation taking place, or occurring vicariously, may require that even normal ovaries should be removed.

The results of Battey's operation should be very good so far as its mortality is concerned. Indeed there should be no mortality whatever in removing non-adherent appendages free from abscesses.

The writer has been in the habit, however, of stating to patients and their friends, that the average failures to cure from the work of all operators amounted to about 10 per cent., that is, that 3–5 per cent. died and 5 per cent. either continued to menstruate or were otherwise uncured or made worse by the operation. They may suffer more afterwards by the formation of painful adhesions or from a ventral hernia than they did before. In the hands of the most expert operators these failures and bad results are greatly lessened in frequency and should not occur at all. With

some unruly patients, and in some unclean environments, perfect results are unattainable by the best operators.

For a description of the technique of this operation, readers are referred to chapters on ovariotomy.

Some points of difference of opinion or methods may, however, be referred to, such for instance as the length of the incision, the time consumed, the unnecessary handling and exposure of the viscera, amount of ether absorbed and less liability to hernia.

In doing Battey's operation, the incision in the abdominal wall should not exceed two and a half inches. An opening large enough to admit two fingers, without bruising the parts, is all that is required. General surgeons often err in this particular by bringing their long incisions and rough manipulative methods into this special field of work. The writer has witnessed operations where a wound of five or six inches was made, one whole hand put in, and then the other, and the intestines let out—all unnecessarily.

Time is an important element in all abdominal operations. The longer the incision the more time it takes to make it and to close it.

The risk of intestinal protrusion is increased with the long incision, and many unnecessary elements of danger are added to the operation, such for instance as the possible kinking of intestines from hasty attempts at replacing after protrusion.

All handling and exposure to the air of the intestines, even though they may be covered with hot towe s, increases the tendency to shock and subsequent adhesions and obstruction of the bowels. This should and can be avoided. This risk is greatly lessened by the short incision. By a two to three inch wound, a quick, clean operation, the quantity of ether absorbed is lessened, and the danger of ventral hernia minimized. It is idle talk to claim that subsequent hernia is no more liable to occur in a six-inch incision than when it is only two inches long.

It is clearly our duty to promote in every possible way a quick and permanent convalescence. Too many successful

cases of two-inch incisions have been reported by Battey, Price, Tait and others with a mortality of less than 3 per cent. to permit of argument on this point. It has passed beyond controversy.

The same rule might with advantage apply to the kindred operation for appendicitis, except, as in Battey's operation, done for big abscesses with adhesions.

The writer recently saw a weak cicatrix seven inches long made by a distinguished general surgeon for a recurrent catarrhal appendicitis. There was no pus, and there were no adhesions to contend with, but it was this surgeon's *rule* to make free, generous incisions in all his cases. The patient, a doctor himself, is now compelled to wear a truss over the upper third of the wound, which was unnecessarily made.

An opening half or one-third as long would have done just as well; the appendix could as easily have been found and tied off; the time of the operation and of the patient under ether shortened; the danger of shock, adhesions, obstruction of the bowels and ventral hernia lessened.

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